REMARKS

Applicants respectfully request favorable reconsideration and reexamination of this application. Claims 1, 5, 9, 10, 12, 15-17 have been revised. Support for the revisions can be found in, e.g., original claims 2, 5 and 10. Claims 2 and 18 have been canceled without prejudice. New claim 19 has been added. Claims 1, 3-17 and 19 are pending.

Claim Rejections 35 USC § 112

Claims 5, 9 and 11 are rejected under 35 U.S.C. 112, second paragraph for lacking clear antecedent basis. Specifically, the rejection contends that "said driven gear" at claim 5, line 6 lacks clear antecedent basis from "a set of driving gears" of lines 4-5. Applicant respectfully submits that "a driven gear" at claim 5, line 5 provides sufficient antecedent basis for "said driven gear" at claim 5, line 6. The "set of driving gears" referred to in the rejection include "driving gears" instead of "driven gears" and are not intended to provide antecedent basis for "said driving gear."

The rejection also contends that "said elastic bracket" in claim 11 lacks clear antecedent basis. Applicant respectfully submits that "an elastic bracket" at claim 10, line 4 provides sufficient antecedent basis for "said elastic bracket" in claim 11.

Claim 9 has been revised to address the Examiner's concern. Applicant is not conceding the correctness of the rejection. Withdrawal of the rejection is respectfully requested.

Claim Rejections 35 USC § 102

Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being obvious over Miller et al. (U.S. Patent No. 6,420,958). Claims 1 and 16 have been revised to include the feature of claim 2, respectively, and thus, claims 1 and 16 are not subjected to this rejection. Applicant is not conceding the correctness of this rejection.

Claim Rejections 35 USC § 103

Claims 2, 3 and 17 were rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958). Applicant respectfully traverses this rejection.

Claim 1 has been revised to include the feature of claim 2. Claim 1 now requires a signal device for producing combination input information and for converting the information into two groups of electrical pulse signals, where the signal device includes a coder. Claim 1 also requires a measurement and control device for not only deciding the order of the electrical pulse signals and calculating correspondingly such that the signals are converted into character sequences including the combination elements, but also deciding whether the current combination elements are confirmed to be inputted or not and deciding whether the input of all the combination elements is completed or not. Claim 1 further requires a confirmation device to be a switch device, where an electrical signal produced when the confirmation device is closed allows the measurement and control device to confirm the current-combination element displayed by the display device as a part of the input combination.

Miller et al. fail to teach or suggest the feature of claim 1. Instead, Miller et al. merely discuss "a dial 14 connected to a rotor 24" and "two phase lines 38 and 40 used to determine the direction of the rotation of the rotor 28." See Miller et al., col. 7, lines 34—51 and Fig. 1. Miller et al. also discuss that the magnetic fields of the magnetic segments 32 extends to and interacts with the coils 34 which are placed in proximity to the rotor 28 to generate a pulse of electricity and that the generator 29 may be a stepper motor driven as a generator. See Miller et al., col. 7, lines 34-43. Miller further discuss that as the rotor 28 is rotated by the dial 14 and shaft 20, a series of pulses are generated which are fed to the power control and pulse shaping device 36. The shaping of the pulses is accomplished by circuitry that is conventional and forms no part of this invention. The pulses are then fed to the microprocessor 44 over the two phase lines 38 and 40. See Miller et al., col. 7, lines 34—51 and Fig. 1. Use of the step motor will cause increase of the cost and increase of complexity of peripheral circuits, such as the shaping circuit and the like, and therefore the manufacturing cost of such electronic digital lock is relatively higher. Use of coder as required in claim 1 will help significantly reduce the cost for manufacturing the lock.

Nor do Miller et al. teach or suggest a confirmation device to be a switch device, where an electrical signal produced when the confirmation device is closed allows the measurement and control device to confirm the current-combination element displayed by the display device as a part of the input combination, as required by claim 1. Instead, Miller et al. merely discuss the

answer to operation 404 in Fig.10, where a check is made as to whether all numbers of the combination have been entered and if the result is negative, the flow braches back to just prior to operation 402, with the acceptance of the remaining numbers of the combination. See Miller et al., col. 18, lines 1-5. This is distinct from the invention of claim 1, which requires a device to confirm the current-combination element displayed by the display device as a part of the input combination.

The applicant notes that the "measurement and control device" in claim 1 decides not only "whether said current combination elements are confirmed to be inputted or not" but also "whether the input of all the combination elements is completed or not."

For at least these reasons, claim 1 is patentable over Miller et al. Claim 3 depends from claim 1 and is patentable along with claim 1 and need not be separately distinguished at this time. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claim 16 has been revised to include the feature of claim 2. Claim 16 is now directed to a method in which a signal device includes a coder. Claim 1 further requires a confirmation device to be a switch device, where an electrical signal produced when the confirmation device is closed allows the measurement and control device to confirm the current-combination element displayed by the display device as a part of the input combination. Claim 16 is patentable for reasons similar to those discussed above regarding claim 1. Claim 17 depends from claim 16 and is patentable along with claim 16 and need not be separately distinguished at this time. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claim 5 is rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) in view of Watanabe (U.S. Published Patent Application No. 2001/0028316), Gossner (U.S. Patent No. 2,574,967) and Davis (U.S. Published Patent Application No. 2004/0007032). Applicant respectfully traverses this rejection. Claim 5 depends from claim 1 and is patentable over Miller et al., Watanabe, Gossner and Davis for at least the same reasons discussed above regarding claims 1 and 3. Watanabe, Gossner and Davis

do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claim.

Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) and Hyatt, Jr. (U.S. Patent No. 5,604,489). Applicant respectfully traverses this rejection. Claims 6 and 9 depend ultimately from claim 1 and are patentable over Miller et al. and Hyatt, Jr. for at least the same reasons discussed above regarding claims 1 and 3. Hyatt, Jr. does not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) over Rossow et al. (U.S. Patent Application Publication No. 2002/0087245) and Laurie (U.S. Patent Application Publication No. 2002/0157437) and Hyatt (U.S. Patent No. 5,604,489). Applicant respectfully traverses this rejection. Claim 4 depends ultimately from claim 1 and is patentable over Miller et al., Rossow et al. and Laurie for at least the same reasons discussed above regarding claims 1 and 3. Rossow et al. and Laurie do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claim 7 is rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) over Gartner (U.S. Patent No. 6,738,344), Nelson (U.S. Patent No. 4,942,329), Greenheck (U.S. Patent No. 6,547,289) and Flory et al. (U.S. Patent Application Publication No. 2004/0182120). Applicant respectfully traverses this rejection. Claim 7 depends ultimately from claim 1 and is patentable over Miller et al., Gartner, Greenheck and Flory et al. for at least the same reasons discussed above regarding claims 1 and 3. Gartner, Greenheck and Flory et al. do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claim.

Claim 8 is rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958), over Watanabe (U.S. Patent Application No. 2001/0028316) and Gossner (U.S. Patent No. 2,547,967) and Davis (U.S. Patent Application Publication No. 2004/0007032)

and Hyatt (U.S. Patent No. 5,604,489). Applicant respectfully traverses this rejection. Claim 8 depends ultimately from claim 1 and is patentable over Miller et al., Watanabe, Gossner and Davis for at least the same reasons discussed above regarding claims 1 and 3. Watanabe, Gossner and Davis do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claim.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) over Aquilar et al. (U.S. Patent Application Publication No. 2001/0004584). Applicant respectfully traverses this rejection. Claims 10 and 11 depend ultimately from claim 1 and are patentable over Miller et al. and Aquilar et al. for at least the same reasons discussed above regarding claims 1 and 3. Aquilar et al. do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claims 12, 13 and 14 are rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) over Aquilar et al. (U.S. Patent Application Publication No. 2001/0004584) and Gartner (U.S. Patent No. 6,738,344). Applicant respectfully traverses this rejection. Claims 12-14 depend ultimately from claim 1 and are patentable over Miller et al., Aquilar et al. and Gartner for at least the same reasons discussed above regarding claims 1 and 3. Aquilar et al. and Gartner do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claims.

Claim 15 is rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. (U.S. Patent No. 6,420,958) over Aquilar et al. (U.S. Patent Application Publication No. 2001/0004584) Gartner (U.S. Patent No. 6,738,344) and Remington et al. (U.S. Patent No. 4,495,540). Applicant respectfully traverses this rejection. Claim 15 depends ultimately from claim 1 and is patentable over Miller et al., Aquilar et al., Gartner and Remington et al. for at least the same reasons discussed above regarding claims 1 and 3. Aquilar et al., Gartner and Remington et al. do not remedy the deficiencies of Miller et al. Applicant is not conceding the relevance of the rejection to the remaining features of the rejected claim.

Application No. 10/575,388
Reply to Office Action dated 04/04/2011

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration and reexamination are requested. Allowance of claims 1, 3-17 and 19 at an early date is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Rong Yang, Limited Recognition No: L0279 at (612) 455-3816.

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER & LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

Dated: July 5, 2011

By: _____
Rong Yang
Limited Recognition No: L0279
CY